

DAFTAR PUSTAKA

- Abotaleb, M., Samuel, S. M., Varghese, E., Varghese, S., Kubatka, P., Liskova, A., & Büsselberg, D. (2019). Flavonoids in cancer and apoptosis. *Cancers*, 11(1). <https://doi.org/10.3390/cancers11010028>
- Abubakar, S., Al-Mansoub, M. A., Murugaiyah, V., & Chan, K. L. (2019). The phytochemical and anti-inflammatory studies of *Dillenia suffruticosa* leaves. *Phytotherapy Research*, 33(3), 660–675. <https://doi.org/10.1002/ptr.6255>
- Achmad, H., A. Armyn, S., Riatno, S., & F. Singgih, M. (2014). Anti-cancer activity and anti-proliferation ant nests flavonoid fraction test (*Myrmecodia Pendans*) human tongue cancer cells in Sp-C1. *IOSR Journal of Dental and Medical Sciences*, 13(6), 1–5. <https://doi.org/10.9790/0853-16620105>
- Achmad, H., Supriatno, Ramadhany, S., Singgih, M., Samad, R., Chandha, M. H., Oktawati, S., & Handayani, H. (2018). Apoptosis induction (caspase-3,-9) and human tongue squamous cell carcinoma vegf angiogenesis inhibition using flavonoid's ethyl acetate fraction of papua ant hill (*Myrmecodia pendans*) SP-C1. *Journal of International Dental and Medical Research*, 11(1), 276–284. http://www.jidmr.com/journal/wp-content/uploads/2022/06/35D22_1823_Ardianti_Maartrina_Dewi_Indonesia.pdf
- Ahmad, F. B., & Holdsworth, D. K. (1995). Traditional medicinal plants of sabah, Malaysia part III. The rungus people of kudat. *Pharmaceutical Biology*, 33(3), 262–264. <https://doi.org/10.3109/13880209509065377>
- Akhsanita, M. (2012). *Uji Sitotoksik Ekstrak, Fraksi, Dan Sub-Fraksi Daun Jati (Tectona Grandis Linn. F.) Dengan Metoda Brine Shrimp Lethality Bioassay [Skripsi]*. Padang: Fakultas Farmasi Universitas Andalas.
- Anandani, E. T., Kusnanto, P., & Purwanto, B. (2018). Pengaruh ekstrak propolis terhadap ekspresi caspase 3, proliferasi dan induksi apoptosis pada sel kanker kolon (cell line WiDr). *Biomedika*, 9(2), 23–30. <https://doi.org/10.23917/biomedika.v9i2.5839>
- Andiana, M., Rachmawati, Y., & Andayani, S. S. (2017). Kultur Sel Baby Hamster Kidney (Bhk) Menggunakan Media Dulbecco's Modified Eagle Medium (Dmem). *Biotropic*, 1(1), 1–8. <https://doi.org/10.29080/biotropic.2017.1.1.1-8>
- Arifah, I. S., Khasanah, K., Lidy, D., & Pandapotan, H. (2015). Kombinasi ekstrak temu putih (*Curcuma zedoaria*) dan bawang putih (*Allium sativum* L.) terhadap aktivitas sel limfoma dengan metode MTT Assay. *Khazanah*, 7(2), 24–38. <https://doi.org/10.20885/khazanah.vol7.iss2.art3>

- Armania, N., Yazan, L. S., Ismail, I. S., Foo, J. B., Tor, Y. S., Ishak, N., Ismail, N., & Ismail, M. (2013b). *Dillenia suffruticosa* extract inhibits proliferation of human breast cancer cell lines (MCF-7 and MDA-MB-231) via Induction of G₂/M arrest and apoptosis. *Molecules*, 18(11), 13320–13339. <https://doi.org/10.3390/molecules181113320>
- Armania, N., Yazan, L. S., Musa, S. N., Ismail, I. S., Foo, J. B., Chan, K. W., Noreen, H., Hisyam, A. H., Zulfahmi, S., & Ismail, M. (2013a). *Dillenia suffruticosa* exhibited antioxidant and cytotoxic activity through induction of apoptosis and G₂/M cell cycle arrest. *Journal of Ethnopharmacology*, 146(2), 525–535. <https://doi.org/10.1016/j.jep.2013.01.017>
- Arvanitis, C. D., Ferraro, G. B., & Jain, R. K. (2020). The blood–brain barrier and blood–tumour barrier in brain tumours and metastases. *Nature Reviews Cancer*, 20(1), 26–41. <https://doi.org/10.1038/s41568-019-0205-x>
- Aslantürk, Ö. S. (2018). In Vitro Cytotoxicity and Cell Viability Assays: Principles, Advantages, and Disadvantages. In Marcelo L. Laramendy & Sonia Soloneski (Eds.), *Genotoxicity - A Predictable Risk to Our Actual World* (h. 1-18). Norderstedt: Books on Demand.
- Bhinge, K. N., Gupta, V., Hosain, S. B., Satyanarayananjois, S. D., Meyer, S. A., Blaylock, B., & Liu, Y. Y. (2012). The opposite effects of doxorubicin on bone marrow stem cells versus breast cancer stem cells depend on glucosylceramide synthase. *The international journal of biochemistry & cell biology*, 44(11), 1770-1778. <https://doi.org/10.1016/j.biocel.2012.06.010>
- Bruneton, J. (1999). *Pharmacognosy phytochemistry medicinal plants (2 ed.)*. Paris: Lavoisier Publishing.
- Bukowski, K., Kciuk, M., & Kontek, R. (2020). Mechanisms of multidrug resistance in cancer chemotherapy. *International Journal of Molecular Sciences*, 21(9), 1–24. <https://doi.org/10.3390/ijms21093233>
- Burhan, A., Aisyah, A. N., Awaluddin, A., Zulham, Z., Taebe, B., & Gafur, A. (2019). Uji aktivitas antioksidan dan antikanker ekstrak batang murbei (*Morus Alba L.*) terhadap sel kanker widr secara in vitro. *Kartika : Jurnal Ilmiah Farmasi*, 7(1), 17. <https://doi.org/10.26874/kjif.v7i1.173>
- Chairunnisa, S., Wartini, N. M., & Suhendra, L. (2019). Pengaruh suhu dan waktu maserasi terhadap karakteristik ekstrak daun bidara (*Ziziphus mauritiana L.*) sebagai sumber saponin. *Jurnal Rekayasa dan Manajemen Agroindustri*, 7(4), 551–560. <https://doi.org/10.24843/jrma.2019.v07.i04.p07>
- Chedid, M. F., Kruel, C. R. P., Pinto, M. A., Grezzana-Filho, T. J. M., Leipnitz, I., Kruel, C. D. P., Scaffaro, L. A., & Chedid, A. D. (2017). Hepatocellular carcinoma: diagnosis and operative management. *Arquivos brasilienses de cirurgia digestiva : ABCD = Brazilian archives of digestive surgery*, 30(4),

- 272–278. <https://doi.org/10.1590/0102-6720201700040011>
- Chen, G. L., Fan, M. X., Wu, J. L., Li, N., & Guo, M. Q. (2019). Antioxidant and anti-inflammatory properties of flavonoids from lotus plumule. *Food Chemistry*, 277, 706–712. <https://doi.org/10.1016/j.foodchem.2018.11.040>
- Chen, H. J., Chung, Y. L., Li, C. Y., Chang, Y. T., Wang, C. C. N., Lee, H. Y., Lin, H. Y., & Hung, C. C. (2018). Taxifolin resensitizes multidrug resistance cancer cells via uncompetitive inhibition of P-glycoprotein function. *Molecules*, 23(12), 1–15. <https://doi.org/10.3390/molecules23123055>
- Chen, P., Kuang, P., Wang, L., Li, W., Chen, B., Liu, Y., Wang, H., Zhao, S., Ye, L., Yu, F., He, Y., & Zhou, C. (2020). Mechanisms of drugs-resistance in small cell lung cancer: DNA-related, RNA-related, apoptosis-related, drug accumulation and metabolism procedure. *Translational Lung Cancer Research*, 9(3), 768–786. <https://doi.org/10.21037/tlcr-19-547>
- Chen, T. R., Drabkowska, D., Hay, R. J., Macy, M., & Peterson, W. (1987). WiDr is a derivative of another colon adenocarcinoma cell line, HT-29. *Cancer Genetics and Cytogenetics*, 27(1), 125–134. [https://doi.org/10.1016/0165-4608\(87\)90267-6](https://doi.org/10.1016/0165-4608(87)90267-6)
- Choudhari, A. S., Suryavanshi, S. A., & Kaul-Ghanekar, R. (2013). The aqueous extract of ficus religiosa induces cell cycle arrest in human cervical cancer cell lines SiHa (HPV-16 Positive) and Apoptosis in HeLa (HPV-18 Positive). *PLoS ONE*, 8(7), 1–10. <https://doi.org/10.1371/journal.pone.0070127>
- Chui, P. L. (2019). Cancer-and chemotherapy-related symptoms and the use of complementary and alternative medicine. *Asia-Pacific Journal of Oncology Nursing*, 6(1), 4–6. <https://doi.org/10.4103/apjon.apjon-51-18>
- Department of Agriculture. (2000). *Medicinal Plants of Brunei Darussalam, Revised Edition*. Brunei Darussalam: Ministry of Industry and Primary Resources. <http://www.worldcat.org/oclc/52423820>
- DeVita, V. T., Lawrence, T. S. & Rosenberg, S. A. (2015). *Cancer: Principles & Practice of Oncology Tenth edn*. Philadelphia: Wolters Kluwer Health.
- Dong, Y., Cao, A., Shi, J., Yin, P., Wang, L., Ji, G., Xie, J., & Wu, D. (2014). Tangeretin, a citrus polymethoxy flavonoid, induces apoptosis of human gastric cancer AGS cells through extrinsic and intrinsic signaling pathways. *Oncology Reports*, 31(4), 1788–1794. <https://doi.org/10.3892/or.2014.3034>
- Doyle, A., dan Griffiths, J. B. (2000). *Cell and Tissue Culture for Medical Research*. John Wiley and Sons Ltd. : New York.
- Ezzat, S. M., Teba, H. E. S., Shahin, I. G., Hafez, A. M., Kamal, A. M., & Aborehab, N. M. (2022). Development of Semisynthetic Apoptosis-Inducing Agents Based on Natural Phenolic Acids Scaffold: Design, Synthesis and In-

- Vitro Biological Evaluation. *Molecules*, 27(19), 6724. <https://doi.org/10.3390/molecules27196724>
- Farombi, E. O. (2004). Diet-related cancer and prevention using anticarcinogens. *African Journal of Biotechnology*, 3(12), 651–661. <https://doi.org/10.1186/1475-2891-3-19>
- Foo, J. B., Saiful Yazan, L., Tor, Y. S., Wibowo, A., Ismail, N., Armania, N., Cheah, Y. K., & Abdullah, R. (2016). *Dillenia suffruticosa* dichloromethane root extract induced apoptosis towards MDA-MB-231 triple-negative breast cancer cells. *Journal of Ethnopharmacology*, 187, 195–204. <https://doi.org/10.1016/j.jep.2016.04.048>
- Foo, J. B., Yazan, L. S., Tor, Y. S., Armania, N., Ismail, N., Imam, M. U., Yeap, S. K., Cheah, Y. K., Abdullah, R., & Ismail, M. (2014). Induction of cell cycle arrest and apoptosis in caspase-3 deficient MCF-7 cells by *Dillenia suffruticosa* root extract via multiple signalling pathways. *BMC Complementary and Alternative Medicine*, 14. <https://doi.org/10.1186/1472-6882-14-197>
- Fuchs-Tarlovsky, V. (2013). Role of antioxidants in cancer therapy. *Nutrition*, 29(1), 15–21. <https://doi.org/10.1016/j.nut.2012.02.014>
- Gacche, R. N., & Jadhav, S. G. (2012). Antioxidant activities and cytotoxicity of selected coumarin derivatives: preliminary results of a structure-activity relationship study using computational tools. *Journal of Experimental and Clinical Medicine*, 4(3), 165–169. <https://doi.org/10.1016/j.jecm.2012.04.007>
- Gangadhara, S., Smith, C., Barrett-Lee, P., & Hiscox, S. (2016). 3D culture of Her2+ breast cancer cells promotes AKT to MAPK switching and a loss of therapeutic response. *BMC cancer*, 16(1), 1-12. <https://doi.org/10.1186/s12885-016-2377-z>
- Giacomini, K.M., Huang, S.M., Tweedie, D.J., Benet, L.Z., Brouwer, K.L., Chu, X., Dahlin, A., Evers, R., Fischer, V., Hillgren, K.M., Hoffmaster, K.A., Ishikawa T, Keppler D, Kim RB, Lee CA, Niemi M, Polli JW, Sugiyama Y, Swaan, P.W., Ware, J.A., Wright, S.H., Yee, S.W., Zamek-Gliszczynski, M.J., Zhang, L. Membrane transporters in drug development. (2010). *Nat Rev Drug Discov*, 9(3), 215–236. <https://doi.org/10.1038/nrd3028>
- Giovannini, C., Scazzocchio, B., Varì, R., Santangelo, C., D'Archivio, M., & Masella, R. (2007). Apoptosis in cancer and atherosclerosis: Polyphenol activities. *Annali Dell'Istituto Superiore Di Sanita*, 43(4), 406–416. <https://pubmed.ncbi.nlm.nih.gov/18209274/>
- Giron, M.E., Aguilar, I., Romeura, L., Sanchez, E.E., Perez, J.C., and Rodriguez-Acosta, A. (2005). A low cost method to test cytotoxic effect of *Crotalus vegrandis* (Viperidae) venom on kidney cell cultures. *Review Instrument of*

- Medical Tropic*, 47(3), 147-152. <https://doi.org/10.1590/s0036-46652005000300006>
- GLOBOCAN. (2020). Indonesia, Globocan 2020. Available at: <https://gco.iarc.fr/today/data/factsheets/populations/360-indonesia-factsheets.pdf> (Diunduh: 11 Agustus 2022).
- Gogoi, B., Gogoi, D., Silla, Y., Kakoti, B. B., & Bhau, B. S. (2017). Network pharmacology-based virtual screening of natural products from *Clerodendrum* species for identification of novel anti-cancer therapeutics. *Molecular BioSystems*, 13(2), 406–416. <https://doi.org/10.1039/c6mb00807k>
- Goh, M. P. Y., Basri, A. M., Yasin, H., Taha, H., & Ahmad, N. (2017). Ethnobotanical review and pharmacological properties of selected medicinal plants in Brunei Darussalam: *Litsea elliptica*, *Dillenia suffruticosa*, *Dillenia excelsa*, *Aidia racemosa*, *Vitex pinnata* and *Senna alata*. *Asian Pacific Journal of Tropical Biomedicine*, 7(2), 173–180. <https://doi.org/10.1016/j.apjtb.2016.11.026>
- Greenwell, M., & Rahman, P. K. S. M. (2015). Medicinal plants: their use in anticancer treatment. *International Journal of Pharmaceutical Sciences and Research*, 6(10), 4103–4112. [https://doi.org/10.13040/IJPSR.0975-8232.6\(10\).4103-12](https://doi.org/10.13040/IJPSR.0975-8232.6(10).4103-12)
- Grigalius, I., & Petrikaite, V. (2017). Relationship between antioxidant and anticancer activity of trihydroxyflavones. *Molecules*, 22(12), 1–12. <https://doi.org/10.3390/molecules22122169>
- Gunadi, D., Oramahi, H. A., & Tavita, G. E. (2017). Studi tumbuhan obat pada etnis dayak di Desa Gerantung Kecamatan Monterado Kabupaten Bengkayang. *Jurnal Hutan Lestari*, 5(2), 425–436. <https://doi.org/10.26418/jhl.v5i2.20089>
- Gupita, C. N., & Rahayuni, A. (2012). Pengaruh herbagai pH sari buah dan suhu pasteurisasi terhadap aktivitas antioksidan dan tingkat penerimaan sari kulit buah manggis. *Journal of Nutrition College*, 1(1), 209–215. <https://doi.org/10.14710/jnc.v1i1.428>
- Hameed-Abdel, E.S.S., S.A. Bazaid, M.M. Shohayeb, M.M. El-Sayed & E.A. El-Walkil. 2012. Phytochemical studies and evaluation of antioxidant, anticancer and antimicrobial properties of *Conocarpus erectus* L. growing in taif, saudi arabia. *European Journal of Medicinal Plants*, 2(2): 93-112. <http://dx.doi.org/10.9734/EJMP/2012/1040>
- Hanahan, D., & Weinberg, R. A. (2011). Hallmarks of cancer: The next generation. *Cell*, 144(5), 646–674. <https://doi.org/10.1016/j.cell.2011.02.013>
- Hanum, F., & Hamzah, N. (1999). The use of medicinal plant species by the temuan tribe of Ayer Hitam Forest, Selangor, Peninsular Malaysia.

Pertanika J. Trap. Agric. Sci., 22(2), 85–94.
http://psasir.upm.edu.my/3802/1/The_Use_of_Medicinal_Plant_Species_by_the_Temuan_Tribe_of_Ayer_Hitam.pdf

- Hariyanti, H., Yanuar, A., Kusmardi, K., & Hayun, H. (2022). Synthesis and in vitro cytotoxic activity of novel indazole analogues of curcumin against MCF-7, HeLa, WiDr, and vero cell lines. *Journal of Applied Pharmaceutical Science*. 12(4): 179-184. <https://doi.org/10.7324/JAPS.2022.120420>
- Haruna, N., Hamzah, Z. A., Syakri, S., Ismail, I., & Hamzah, N. (2018). Efek ekstrak metanol dan partisi dari pulit batang kayu jawa (*Lannea coromandelica* Houtt. Merr.) terhadap pertumbuhan sel HeLa dan MCF-7. *Ad-Dawaa' Journal of Pharmaceutical Sciences*, 1(2). <https://doi.org/10.24252/djps.v1i2.11338>

Hassani A, Mahmood S, Enezei HH, Hussain SA, Hamad HA, Aldoghachi AF, Hagar A, Doolaanea AA, Ibrahim WN. Formulation, characterization and biological activity screening of sodium alginate-gum arabic nanoparticles loaded with curcumin. 2020. *Molecules*. 25(9): 2244. <https://doi.org/10.3390/molecules25092244>

Hediyansah, R., Salima, N., Siburian, K., Masriani, M., & Rasmawan, R. (2019). Aktivitas antidiabetes ekstrak etanol *Dillenia suffruticosa* (Griff.) Martelli pada tikus diabetes yang diinduksi Streptozotosin-Nikotinamid. *Pharmaceutical Journal of Indonesia*, 16(2), 326. <https://doi.org/10.30595/pharmacy.v16i2.5783>

Henry, C. M., Hollville, E., & Martin, S. J. (2013). Measuring apoptosis by microscopy and flow cytometry. *Methods*, 61(2), 90–97. <https://doi.org/10.1016/j.ymeth.2013.01.008>

Hossain, M. S., Karuniawati, H., Jairoun, A. A., Urbi, Z., Ooi, D. J., John, A., Lim, Y. C., Kibria, K. M. K., Mohiuddin, A. K. M., Ming, L. C., Goh, K. W., & Hadi, M. A. (2022). Colorectal Cancer: A Review of Carcinogenesis , Global. *Cancer*, 14(1732), 1–25. <https://doi.org/10.3390/cancers14071732>

Hosseini, A., & Ghorbani, A. (2015). Cancer therapy with phytochemicals: evidence from clinical studies. *Avicenna Journal of Phytomedicine*, 5(2), 84–97. <http://www.ncbi.nlm.nih.gov/pubmed/25949949%0A>

Husain N. (2010). Anticolorectal cancer properties of *Dillenia suffruticosa* (Griffith Ex. Hook. F. & Thomson) Martelli water extract in in-vitro and in-vivo models [Master's thesis]. Universiti Putra Malaysia.

Jalaluddin, S. (2009). *The Treasures of Our Heritage Garden: Dillenia*. Kuala Lumpur, Malaysia: Buletin Warisan Malaysia.

Jamalidoust, M., Ravanshad, M., Namayandeh, M., Zare, M., Asaei, S., & Ziayaeyan, M. (2016). Construction of AAV-rat-IL4 and evaluation of its

modulating effect on A β (1-42)-induced proinflammatory cytokines in primary microglia and the B92 cell line by quantitative PCR assay. *Jundishapur journal of microbiology*, 9(3). <https://doi.org/10.5812/jjm.30444>

Jiang, W. G., Sanders, A. J., Katoh, M., Ungefroren, H., Gieseler, F., Prince, M., Thompson, S. K., Zollo, M., Spano, D., Dhawan, P., Sliva, D., Subbarayan, P. R., Sarkar, M., Honoki, K., Fujii, H., Georgakilas, A. G., Amedei, A., Niccolai, E., Amin, A., Santini, D. (2015). Tissue invasion and metastasis: molecular, biological and clinical perspectives. *Seminars in Cancer Biology*, 35, 244–275. <https://doi.org/10.1016/j.semcan.2015.03.008>

Johnny, L., Yusuf, U. K., & Nulit, R. (2010). The effect of herbal plant extracts on the growth and sporulation of *Colletotrichum gloeosporioides*. *Journal of Applied Biosciences*, 34, 2218–2224.

Kainama, H., Fatmawati, S., Santoso, M., Papilaya, P. M., & Ersam, T. (2020). The relationship of free radical scavenging and total phenolic and flavonoid contents of *Garcinia lasoar* PAM. *Pharmaceutical Chemistry Journal*, 53(12), 1151–1157. <https://doi.org/10.1007/s11094-020-02139-5>

Kamiloglu, S., Sari, G., Ozdal, T., & Capanoglu, E. (2020). Guidelines for cell viability assays. *Food Frontiers*, 1(3), 332–349. <https://doi.org/10.1002/fft2.44>

Khazir, J., Mir, B. A., Pilcher, L., & Riley, D. L. (2014). Role of plants in anticancer drug discovery. *Phytochemistry Letters*, 7(1), 173–181. <https://doi.org/10.1016/j.phytol.2013.11.010>

Khorsandi, L., Niazvand, F., Orazizadeh, M., & Abbaspour, M. (2017). Quercetin induces apoptosis and necroptosis in MCF-7 breast cancer cells. *Bratislava Medica Journal*, 118(2), 123–128. https://doi.org/10.4149/BLL_2017_025

Kirtane, A. R., Kalscheuer, S. M., & Panyam, J. (2013). Exploiting nanotechnology to overcome tumor drug resistance: challenges and opportunities. *Advanced Drug Delivery Reviews*, 65(13–14), 1731–1747. <https://doi.org/10.1016/j.addr.2013.09.001>

Klaunig, J. E., & Kamendulis, L. M. (2004). The role of oxidative stress in carcinogenesis. *Annual Review of Pharmacology and Toxicology*, 44(1), 239–267. <https://doi.org/10.1146/annurev.pharmtox.44.101802.121851>

Kunnumakkara, A. B., Bordoloi, D., Harsha, C., Banik, K., Gupta, S. C., & Aggarwal, B. B. (2017). Curcumin mediates anticancer effects by modulating multiple cell signaling pathways. *Clinical science*, 131(15), 1781–1799. <https://doi.org/10.1042/cs20160935>

Kuntorini, E. M., & Astuti, M. D. (2010). Penentuan aktivitas antioksidan ekstrak etanol bulbus bawang dayak (*Eleutherine americana* Merr.). *Sains dan*

Terapan Kimia, 4(1), 15–22. <https://doi.org/10.20527/jstk.v4i1.2043>

- Levrero, M., De Laurenzi, V., Costanzo, A., Sabatini, S., Gong, J., Wang, J. Y. J., & Melino, G. (2000). The p53/p63/p73 family of transcription factors: overlapping and distinct functions. *Journal of Cell Science*, 113(10), 1661–1670. <https://doi.org/10.1242/jcs.113.10.1661>
- Lewandowska, A. M., Rudzki, M., Rudzki, S., Lewandowski, T., & Laskowska, B. (2019). Environmental risk factors for cancer - review paper. *Annals of Agricultural and Environmental Medicine*, 26(1), 1–7. <https://doi.org/10.26444/aaem/94299>
- Li, Y. T., Chua, M. J., Kunnath, A. P., & Chowdhury, E. H. (2012). Reversing multidrug resistance in breast cancer cells by silencing ABC transporter genes with nanoparticle-facilitated delivery of target siRNAs. *International Journal of Nanomedicine*, 7, 2473–2481. <https://doi.org/10.2147/IJN.S30500>
- Liao, C. Y., Lee, C. C., Tsai, C. C., Hsueh, C. W., Wang, C. C., Chen, I. H., Tsai, M. K., Liu, M. Y., Hsieh, A. T., Su, K. J., Wu, H. M., Huang, S. C., Wang, Y. C., Wang, C. Y., Huang, S. F., Yeh, Y. C., Ben, R. J., Chien, S. T., Hsu, C. W., & Kuo, W. H. (2015). Novel investigations of flavonoids as chemopreventive agents for hepatocellular carcinoma. *BioMed Research International*, 2015, 1–26. <https://doi.org/10.1155/2015/840542>
- Ligasová, A., & Koberna, K. (2021). Dna dyes—highly sensitive reporters of cell quantification: Comparison with other cell quantification methods. *Molecules*, 26(18). <https://doi.org/10.3390/molecules26185515>
- Liu, X. F., Zhang, H., Zhu, S. G., Zhou, X. T., Su, H. L., Xu, Z., & Li, S. J. (2006). Correlation of p53 gene mutation and expression of P53 protein in cholangiocarcinoma. *World Journal of Gastroenterology*, 12(29), 4706–4709. <https://doi.org/10.3748/wjg.v12.i29.4706>
- Liu, Y., Harinantenaina, L., Brodie, P. J., Slebodnick, C., Callmander, M. W., Rakotondrajaona, R., Rakotobe, E., Rasamison, V. E., Tendyke, K., Shen, Y., & Kingston, D. G. I. (2013). Structure elucidation of antiproliferative bisbenzylisoquinoline alkaloids from *Anisocycla grandiflora* from the Madagascar dry forest. *Magnetic Resonance in Chemistry*, 51(9), 574–579. <https://doi.org/10.1002/mrc.3976>
- Lucey, B. P., Nelson-Rees, W. A., & Hutchins, G. M. (2009). Henrietta lacks, HeLa cells, and cell culture contamination. *Archives of Pathology & Laboratory Medicine*, 133(9), 1463–1467. <https://doi.org/10.5858/133.9.1463>
- Macahig, R. A. S., Matsunami, K., & Otsuka, H. (2011). Chemical studies on an endemic philippine plant: sulfated glucoside and seco-A-ring triterpenoids from *Dillenia philippinensis*. *Chemical and Pharmaceutical Bulletin*, 59(3).

<https://doi.org/10.1248/cpb.59.397>

- Martinez, J. D., Parker, M. T., Fultz, K. E., Ignatenko, N. A., & Gerner, E. W. (2003). Molecular Biology of Cancer. In D. J. Abraham (Ed), *Burger's Medicinal Chemistry and Drug Discovery* (h. 1–50). United States: John Wiley & Sons, Inc.
- Masriani (2014). Potensi Antioksidan dan Antikanker Alkaloid Bisbenzilisokuinolin dari Akar Sengkubak [(*Pycnarrhena cauliflora* (Miers) Diels]: Isolasi, Sitotoksitas, dan Mekanisme Aksinya. [Disertasi]. Doctoral Program. Gadjah Mada University, Yogyakarta.
- Masriani, Fadly, D., & Bohari. (2020). A-glucosidase inhibitory activity of ethanol extract obtained from *Dillenia Suffruticosa* and *Pycnarrhena Cauliflora*. *Journal of Global Pharma Technology*, 12(2), 881–887. <http://jgpt.co.in/index.php/jgpt/article/view/3399/2673>
- Masriani, Mustofa, Jumina, Sunarti, & Enawaty, E. (2014). Cytotoxic and pro-apoptotic activities of crude alkaloid from root of sengkubak (*Pycnarrhena cauliflora* (Miers.) Diels) in human breast cancer T47D cell line. *Scholars Academic Journal of Biosciences*, 2(5), 336–340. www.saspublisher.com
- Michaelis, M., Wass, M. N., & Cinatl, J. (2019). Drug-adapted cancer cell lines as preclinical models of acquired resistance. *Cancer Drug Resistance*, 2(3), 447–456. <https://doi.org/10.20517/cdr.2019.005>
- Miller, K. D., Nogueira, L., Mariotto, A. B., Rowland, J. H., Yabroff, K. R., Alfano, C. M., Jemal, A., Kramer, J. L., & Siegel, R. L. (2019). Cancer treatment and survivorship statistics, 2019. *CA: A Cancer Journal for Clinicians*, 69(5), 363–385. <https://doi.org/10.3322/caac.21565>
- Miranti, Yeni, L. F., & Nurdini, A. (2014). Uji potensi anti kanker ekstrak biji pinang merah dan implementasinya dalam pembelajaran mitosis. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa*, 3(11), 1–19. <https://doi.org/10.26418/jppk.v3i11.7656>
- Moscato, S., Ronca, F., Campani, D., & Danti, S. (2015). Poly(vinyl alcohol)/gelatin hydrogels cultured with HepG2 cells as a 3D model of hepatocellular carcinoma: a morphological study. *Journal of Functional Biomaterials*, 6(1), 16–32. <https://doi.org/10.3390/jfb6010016>
- Mosmann, T. (1983). Rapid colorimetric assay for cellular growth and survival: Application to proliferation and cytotoxicity assays. *Journal of Immunological Methods*, 65(1–2), 55–63. [https://doi.org/10.1016/0022-1759\(83\)90303-4](https://doi.org/10.1016/0022-1759(83)90303-4)
- Muharini, R., Lestari, I., & Masriani, M. (2021). Antioxidant-phenolic content correlation of phenolics rich fractions from *Dillenia suffruticosa* wood bark. *Pharmaciana*, 11(2), 283–292.

<https://doi.org/10.12928/pharmaciana.v11i2.20674>

- Mukhriani. (2014). Ekstraksi, pemisahan senyawa, dan identifikasi senyawa aktif. *Jurnal Kesehatan*, 7(2), 361–367. <https://doi.org/10.24252/kesehatan.v7i2.55>
- Muliawan, S. Y. (2008). Effect of *Dillenia suffruticosa* extract on dengue virus type 2 replication. *Universa Medicina*, 27(1), 1–5. <https://doi.org/10.18051/UnivMed.2008.v27.1-5>
- Mutiah, R., Badiyah, R., Hayati, E. K., & Widyawaruyanti, A. (2017). Activity of antimarial compounds from ethyl acetate fraction of sunflower leaves (*Helianthus annuus* L.) against plasmodium falciparum parasites 3D7 strain. *Asian Journal of Pharmacy and Technology*, 7(2), 86. <https://doi.org/10.5958/2231-5713.2017.00015.0>
- Nagappan, A., Lee, H. J., Saralamma, V. V. G., Park, H. S., Hong, G. E., Yumnam, S., Raha, S., Charles, S. N., Shin, S. C., Kim, E. H., Lee, W. S., & Kim, G. S. (2016). Flavonoids isolated from *Citrus platymamma* induced G₂/M cell cycle arrest and apoptosis in A549 human lung cancer cells. *Oncology Letters*, 12(2), 1394–1402. <https://doi.org/10.3892/ol.2016.4793>
- Nema, R. & Khare, S. (2012) An animal cell culture: Advance technology for modern research. *Advances in Bioscience and Biotechnology*, 3, 219-226. <https://doi.org/10.4236/abb.2012.33030>
- Noguchi, P., Wallace, R., Johnson, J., Earley, E. M., O'Brien, S., Ferrone, S., Pellegrino, M. A., Milstien, J., Needy, C., Browne, W., & Petricciani, J. (1979). Characterization of WiDr: a human colon carcinoma cell line. *In Vitro*, 15(6), 401–408. <https://doi.org/10.1007/BF02618407>
- Nugroho, A. E., Hermawan, A., Putri, D. D. P., Novika, A., & Meiyanto, E. (2013). Combinational effects of hexane insoluble fraction of *Ficus septica* Burm. F. and doxorubicin chemotherapy on T47D breast cancer cells. *Asian Pacific Journal of Tropical Biomedicine*, 3(4), 297–302. [https://doi.org/10.1016/S2221-1691\(13\)60066-0](https://doi.org/10.1016/S2221-1691(13)60066-0)
- Nurani, L. H., Widyarini, S., & Mursyidi, A. (2015). Uji sitotoksik dan uji kombinasi fraksi etil asetat ekstrak etanol akar pasak bumi (*euonymus Longifolia* Jack.) dan dokosorubisin pada sel limfosit. *Journal Of Tropical Pharmacy and Chemistry*, 3(2), 138–147. <https://doi.org/10.25026/jtpc.v3i2.100>
- Okey, A. B., Harper, P. A., Grant, D. M., & Hill, R. P. (2005). *Chemical and Radiation Carcinogenesis 4th ed.* New York: McGraw-Hill

- Palozza, P., Serini, S., Maggiano, N., Tringali, G., Navarra, P., Ranelletti, F. O., & Calviello, G. (2005). β -carotene downregulates the steady-state and heregulin- α - induced COX-2 pathways in colon cancer cells. *Journal of Nutrition*, 135(1), 129–136. <https://doi.org/10.1093/jn/135.1.129>
- Patterson, A. D., Gonzalez, F. J., Perdew, G. H., & Peters, J. M. (2018). Molecular regulation of carcinogenesis: friend and foe. *Toxicological Sciences*, 165(2), 277–283. <https://doi.org/10.1093/toxsci/kfy185>
- Pinsolle, J., Terzi, N., Ferrer, L., Gajaj Levra, M., Toffart, A. C., & Moro-Sibilot, D. (2019). Advances in the management of lung cancers. *Medecine Intensive Reanimation*, 28(4), 290–299. <https://doi.org/10.3166/rea-2019-0091>
- Plantamor. (2022). Informasi spesies: Simpur Air (*Dilleia Suffruticosa*). <http://www.plantamor.com/in dex.php?plant=479>. Diakses 8 Agustus 2022.
- Prager, G. W., Braga, S., Bystricky, B., Qvortrup, C., Criscitiello, C., Esin, E., Sonke, G. S., Martínez, G. A., Frenel, J. S., Karamouzis, M., Strijbos, M., Yazici, O., Bossi, P., Banerjee, S., Troiani, T., Eniu, A., Ciardiello, F., Tabernero, J., Zielinski, C. C., Casali, P.G., Cardoso, F., Douillard, J.Y., Jezdic, S., McGregor, K., Bricalli, G., Vyas, M., Ilbawi, A. (2018). Global cancer control: responding to the growing burden, rising costs and inequalities in access. *ESMO Open*, 3(2), 1–10. <https://doi.org/10.1136/esmoopen-2017-000285>
- Prakash, O., Kumar, A., Kumar, P., & Ajeet, A. (2013). Anticancer potential of plants and natural products: A review. *American Journal of Pharmacological Sciences*, 1(6), 104–115. <https://doi.org/10.12691/ajps-1-6-1>
- Propst, C. N., Pylypko, S. L., Blower, R. J., Ahmad, S., Mansoor, M., & Van Hoek, M. L. (2016). Francisella philomiragia infection and lethality in mammalian tissue culture cell models, *Galleria mellonella*, and BALB/c mice. *Frontiers in microbiology*, 7, 696. <https://doi.org/10.3389/fmicb.2016.00696>
- Pratiwi, L., Fudholi, A., Martien, R., & Pramono, S. (2016). Ethanol extract, ethyl acetate extract, ethyl acetate fraction, and n-heksan fraction mangosteen peels (*Garcinia mangostana* L.) as source of bioactive substance free-radical scavengers. *JPSCR: Journal of Pharmaceutical Science and Clinical Research*, 1(2), 71. <https://doi.org/10.20961/jpscr.v1i2.1936>
- Price, S.A., & Wilson, L.M. (2005). *Patofisiologi: Konsep Klinis Proses-Proses Penyakit*, Edisi 6. Jakarta: EGC.
- Putra, A. Y. T. (2019). Skrining fitokimia ekstrak etil asetat daun simpor (*Dillenia suffruticosa*). *JITIPARI (Jurnal Ilmiah Teknologi dan Industri Pangan UNISRI)*, 4(1). <https://doi.org/10.33061/jitipari.v4i1.3017>
- Rather, R. A., & Bhagat, M. (2020). Quercetin as an innovative therapeutic tool

- for cancer chemoprevention: Molecular mechanisms and implications in human health. *Cancer Medicine*, 9(24), 9181–9192. <https://doi.org/10.1002/cam4.1411>
- Rogosnitzky, M., & Danks, R. (2011). Therapeutic potential of the bisclaurine alkaloid, cepharantheine, for a range of clinical conditions. *Pharmacological Reports*, 63(2), 337–347. [https://doi.org/10.1016/S1734-1140\(11\)70500-X](https://doi.org/10.1016/S1734-1140(11)70500-X)
- Rollando, & Prilianti, K. R. (2017). Fraksi etil asetat kulit batang faloak (*Sterculia quadrifida* R.Br) menginduksi apoptosis dan siklus sel pada sel kanker payudara T47D. *Jurnal Farmasi Sains dan Komunitas*, 14(1), 1–14. <https://doi.org/10.24071/jpsc.00557>
- Rosdiana, A., & Hadisaputri, Y. E. (2016). Studi pustaka tentang prosedur kultur sel. *Farmaka*, 14(1), 236-249. <https://doi.org/10.24198/jf.v14i1.10781.g5145>
- Ruttkay-nedecky, B., Jimenez Jimenez, A. M., Nejdl, L., Chudobova, D., Gumulec, J., Masarik, M., Adam, V., & Kizek, R. (2013). Relevance of infection with human papillomavirus: The role of the p53 tumor suppressor protein and E6/E7 zinc finger proteins (Review). *International Journal of Oncology*, 43(6), 1754–1762. <https://doi.org/10.3892/ijo.2013.2105>
- Said Z. (2010). *In vitro* cytotoxicity and *in vivo* anti-neoplastic properties of *Dillenia suffruticosa* water extract on cervical carcinogenesis [Master's thesis]. Universiti Putra Malaysia.
- Saifudin, A. (2014). *Senyawa Alam Metabolit Sekunder Teori, Konsep, dan Teknik Pemurnian*. Deepublish: Yogyakarta.
- Saputra, T. R., Ngatin, A., & Sarungu, Y. T. (2018). Penggunaan metode ekstraksi maserasi dan partisi pada tumbuhan cocor bebek (*Kalanchoe pinnata*) dengan kepolaran berbeda. *Fullerene Journal of Chemistry*, 3(1), 5. <https://doi.org/10.37033/fjc.v3i1.26>
- Saraswati, M., Harmastuti, N., & Herdwiani, W. (2020). Aktivitas sitotoksik dan ekspresi protein p53 Bcl-2 ekstrak dan fraksi daun kersen (*Muntingia calabura* L.) terhadap sel kanker payudara T47D. *Pharmaceutical Journal of Indonesia*, 17(2), 292-303. <https://doi.org/10.30595/pharmacy.v17i2.7280>
- Saraswathy, M., & Gong, S. (2013). Different strategies to overcome multidrug resistance in cancer. *Biotechnology Advances*, 31(8), 1397–1407. <https://doi.org/10.1016/j.biotechadv.2013.06.004>
- Schinkel, A. H., & Jonker, J. W. (2012). Mammalian drug efflux transporters of the ATP binding cassette (ABC) family: an overview. *Advanced Drug Delivery Reviews*, 64, 138–153. <https://doi.org/10.1016/j.addr.2012.09.027>
- Shaffer, B. C., Gillet, J. P., Patel, C., Baer, M. R., Bates, S. E., & Gottesman, M. M. (2012). Drug resistance: still a daunting challenge to the successful

- treatment of AML. *Drug Resistance Updates*, 15(1–2), 62–69. <https://doi.org/10.1016/j.drup.2012.02.001>
- Shanmugapriya, Chen, Y., Kanwar, J. R., & Sasidharan, S. (2016). Effects of *Calophyllum inophyllum* fruit extract on the proliferation and morphological characteristics of human breast cancer cells MCF-7. *Asian Pacific Journal of Tropical Disease*, 6(4), 291–297. [https://doi.org/10.1016/S2222-1808\(15\)61033-7](https://doi.org/10.1016/S2222-1808(15)61033-7)
- Stark, H., & Zivković, A. (2018). HPV Vaccination: Prevention of Cervical Cancer in Serbia and in Europe. *Acta Facultatis Medicinae Naissensis*, 35(1), 5–16. <https://doi.org/10.2478/afmnai-2018-0001>
- Suh, Y., Afaq, F., Johnson, J. J., & Mukhtar, H. (2009). A plant flavonoid fisetin induces apoptosis in colon cancer cells by inhibition of COX2 and Wnt/EGFR/NF-κB-signaling pathways. *Carcinogenesis*, 30(2), 300–307. <https://doi.org/10.1093/carcin/bgn269>
- Sung, H., Ferlay, J., Siegel, R. L., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2021). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians*, 71(3), 209–249. <https://doi.org/10.3322/caac.21660>
- Susanty, & Bachmid, F. (2016). Perbandingan metode ekstraksi maserasi dan refluks terhadap kadar fenolik dari ekstrak tongkol jagung (*Zea mays* L.). *Konversi*, 5(2), 87–93. <https://doi.org/10.24853/konversi.5.2.87-92>
- Sutedjo, I. R., Putri, H., dan Meiyanto, E. 2016. Ethanolic leaves extract of awar-awar (*Ficus septica*) as selective chemopreventive agent on various cancer cells. *NurseLine Journal*, 190-197. <https://jurnal.unej.ac.id/index.php/NLJ/article/view/4897>
- Suzuki, T., Yasuda, H., Funaiishi, K., Arai, D., Ishioka, K., Ohgino, K., Tani, T., Hamamoto, J., Ohashi, A., Naoki, K., Betsuyaku, T., & Soejima, K. (2015). Multiple roles of extracellular fibroblast growth factors in lung cancer cells. *International Journal of Oncology*, 46(1), 423–429. <https://doi.org/10.3892/ijo.2014.2718>
- Syafriana, V., Febriani, A., Suyatno, S., Nurfitri, N., & Hamida, F. (2021). Antimicrobial activity of ethanolic extract of sempur (*Dillenia suffruticosa* (Griff.) Martelli) leaves against pathogenic microorganisms. *Borneo Journal of Pharmacy*, 4(2), 135–144. <https://doi.org/10.33084/bjop.v4i2.1870>
- Syahidah, H. N., & Hadisaputri, Y. E. (2016). Media yang digunakan pada kultur sel. *Farmaka*, 14(3), 27-36. <https://doi.org/10.24198/jf.v14i3.10615.g5051>
- To, K. K. W. (2013). MicroRNA: a prognostic biomarker and a possible druggable target for circumventing multidrug resistance in cancer

- chemotherapy. *Journal of Biomedical Science*, 20(1), 1–19. <https://doi.org/10.1186/1423-0127-20-99>
- Tor, Y. S., Yazan, L. S., Foo, J. B., Armania, N., Cheah, Y. K., Abdullah, R., Imam, M. U., Ismail, N., & Ismail, M. (2014). Induction of apoptosis through oxidative stress-related pathways in MCF-7, human breast cancer cells, by ethyl acetate extract of *Dillenia suffruticosa*. *BMC Complementary and Alternative Medicine*, 14(1), 1–12. <https://doi.org/10.1186/1472-6882-14-55>
- Tor, Y. S., Yazan, L. S., Foo, J. B., Wibowo, A., Ismail, N., Cheah, Y. K., Abdullah, R., Ismail, M., Ismail, I. S., & Yeap, S. K. (2015). Induction of apoptosis in MCF-7 cells via oxidative stress generation, mitochondria-dependent and caspase-independent pathway by ethyl acetate extract of *Dillenia suffruticosa* and its chemical profile. *PLoS ONE*, 10(6), 1–25. <https://doi.org/10.1371/journal.pone.0127441>
- Utami, N.T. (2022). *Komponen Kimia dari Fraksi Diklorometana Akar Pandan (Pandanus amarullifolius Roxb.) dan Aktivitas sitotoksiknya terhadap Sel Kanker HeLa*. [Tesis]. Pontianak : Universitas Tanjungpura.
- Utari., E. N. T., A, I. S., Sari, R., K., W. A., & Harti, A. (2013). Kegunaan daun sirsak (*Annona Muricata L.*) untuk membunuh sel kanker dan pengganti kemoterapi. *KesMaDaSka*, 2(3), 1–6.
- Wahdaningsih, S., Budilaksono, W., & Fahrurroji, A. (2015). Uji aktivitas antioksidan fraksi n-heksana kulit buah naga merah menggunakan metode 1,1-Difenil-2-Pikrilhidrazil. *Jurnal Kesehatan Khatulistiwa*, 1(2), 115. <https://doi.org/10.26418/jurkeswa.v1i2.42997>
- Wang, H., Ao, M., Wu, J., & Yu, L. (2013). TNF α and Fas/FasL pathways are involved in 9-Methoxycamptothecin-induced apoptosis in cancer cells with oxidative stress and G₂/M cell cycle arrest. *Food and Chemical Toxicology*, 55, 396–410. <https://doi.org/10.1016/j.fct.2012.12.059>
- Wang, X., Zhang, H., & Chen, X. (2019). Drug resistance and combating drug resistance in cancer. *Cancer Drug Resistance*, 2(2), 141–160. <https://doi.org/10.20517/cdr.2019.10>
- Wiart, C., Mogana, S., Khalifah, S., Mahan, M., Ismail, S., Buckle, M., Narayana, A. K., & Sulaiman, M. (2004). Antimicrobial screening of plants used for traditional medicine in the state of Perak, Peninsular Malaysia. *Fitoterapia*, 75(1), 68–73. <https://doi.org/10.1016/j.fitote.2003.07.013>
- Widyanto, R. M., Putri, J. A., Rahmi, Y., Proborini, W. D., & Utomo, B. (2020). Aktivitas antioksidan dan sitotoksitas in vitro ekstrak metanol buah nanas (*Ananas comosus*) pada sel kanker payudara T-47D. *Jurnal Pangan dan Agroindustri*, 8(2), 95–103. <https://doi.org/10.21776/ub.jpa.2020.008.02.5>
- Xia, C., Dong, X., Li, H., Cao, M., Sun, D., He, S., Yang, F., Yan, X., Zhang, S.,

- Li, N., & Chen, W. (2022). Cancer statistics in China and United States, 2022: profiles, trends, and determinants. *Chinese Medical Journal*, 135(5), 584–590. <https://doi.org/10.1097/CM9.0000000000002108>
- Xie, M. J., Ma, Y. H., Miao, L., Wang, Y., Wang, H. Z., Xing, Y. Y., Xi, T., & Lu, Y. Y. (2014). Emodin-provoked oxidative stress induces apoptosis in human colon cancer HCT116 cells through a p53-mitochondrial apoptotic pathway. *Asian Pacific Journal of Cancer Prevention*, 15(13), 5201–5205. <https://doi.org/10.7314/APJCP.2014.15.13.5201>
- Xu, C., Li, C. Y. T., & Kong, A. N. T. (2005). Induction of phase I, II and III drug metabolism/transport by xenobiotics. *Archives of Pharmacal Research*, 28(3), 249–268. <https://doi.org/10.1007/BF02977789>
- Yakop, F., Hamid, M. H. S. A., Ahmad, N., Majid, M. A., Pillai, M. K., & Taha, H. (2020). Phytochemical screening, antioxidant and antibacterial activities of extracts and fractions of *Dillenia suffruticosa* leaves. *Malay Appl Biol*, 49(1), 121–130. <https://doi.org/10.55230/mabjournal.v49i1.1663>
- Yazan, L. S., & Armania, N. (2014). Dillenia species: A review of the traditional uses, active constituents and pharmacological properties from pre-clinical studies. *Pharmaceutical Biology*, 52(7), 890–897. <https://doi.org/10.3109/13880209.2013.872672>
- Yazan, L. S., Ong, Y. S., Zaaba, N. E., Ali, R. M., Foo, J. B., & Tor, Y. S. (2015). Asian pacific journal of tropical biomedicine in BALB / c mice. *Asian Pacific Journal of Tropical Biomedicine*, 5(12), 1018–1026. <http://dx.doi.org/10.1016/j.apjtb.2015.09.008>
- Yulianingtyas, A., & Kusmartono, B. (2016). Optimalisasi volume pelarut dan waktu maserasi pengambilan flavonoid daun belimbing wuluh (*Averrhoa bilimbi* L.). *Jurnal Teknik Kimia*, 10(2), 58–64. <https://doi.org/10.1016/j.annemergmed.2013.08.024>
- Yuningtyas, S., Roswiem, A. P., & Erfina, E. (2018). Aktivitas inhibisi α-glukosidase dari ekstrak air dan etanol daun simpur air (*Dillenia suffruticosa* (Griff.) Martelli). *Pharmamedica Journal*, 3(1), 21–26. <https://doi.org/10.47219/ath.v3i1.23>
- Zeb, A. (2020). Concept, mechanism, and applications of phenolic antioxidants in foods. *Journal of Food Biochemistry*, 44(9), 1–22. <https://doi.org/10.1111/jfbc.13394>
- Zhang, Q. W., Lin, L. G., & Ye, W. C. (2018). Techniques for extraction and isolation of natural products: a comprehensive review. *Chinese Medicine*, 13(1), 1–26. <https://doi.org/10.1186/s13020-018-0177-x>